**Mannequin Modeling Exercise**

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The class is divided into teams of two students. Each

team is given the assignment of becoming an expert on

two muscles with antagonistic actions.

Each team of two students chooses any two muscles

from the list of muscles that are part of the course objectives

and then reserves that set of muscles with the

instructor. Usually, we write the pairs of muscles on the

board to let teams know which sets have already been

reserved.

Each team is responsible for modeling the muscle

on the mannequin with modeling clay and then doing a

short presentation to the class on the set of muscles.

Each presentation must include the following:

• The team must demonstrate the action of the

muscle.

• The team must “model” the muscle in clay on the

mannequin.

• The team must correctly state the origin of the

muscle.

• The team must correctly state the insertion of the

muscle.

I offer students the opportunity to practice their

modeling and their presentation with me prior to their

doing it in front of the whole class. This allows me to

help discover student errors and misconceptions

through formative assessment in a non-threatening

mode. I am always amazed when the students correctly

name an origin and insertion, but then simply place a

lump of clay on only one bone of their model! Clearly,

one of the advantages of this short exercise is helping

students learn to use the tools in their textbook, such as

tables and diagrams, so that they may learn how to learn

new material as they move on in their clinical courses.

I have successfully used this exercise for about eight

semesters. While this may seem to be a fairly straightforward

and perhaps simple assignment, I have found it

extremely useful in identifying student “thinking”

errors. Also, when I use classroom assessment tools to

ask students if this was a valuable learning experience,

they always respond in a very positive way. In general,

students comment that they learn most when they have a

hands-on activity. I also moved the presentation portion

of this activity prior to the formal testing of muscle

anatomy after several students indicated that they

learned a great deal from their peers’ presentations

because only two muscles were presented at a time. By

asking for student feedback, I have refined this activity

and continue to work on other activities that help students

demonstrate their knowledge in modes other than

traditional paper and pencil tests. ■

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